

NOTE ON *PACHYNEMATUS ARCTICUS*  
(LINDQVIST) (HYMENOPTERA,  
TENTHREDINIDAE)

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By ANDREW D. LISTON\*

An excursion to Ben Heasgarnich (1076m), Perthshire, made by Mr. J. M. Nelson and the writer on 24.-25.6.1981 yielded only five sawfly specimens, one being of great interest. Collecting commenced on the evening of the 24th on the high slopes of Heasgarnich (ca. 900m.) in an area of heavily grazed *Festuca-Vaccinium* grassland. *Dolerus aeneus* Hartig was the only sawfly encountered here (1 male, 1 female). On the summit, *Salix herbacea* L. formed large patches amongst the snow-influenced vegetation. Numerous leaves bore young galls of *Pontania crassipes* Thomson, and one adult female of this species was collected together with a male *Pristiphora staudingeri* (Ruthe). Both *crassipes* and *staudingeri* are arctic-alpine Nematinae, occurring on many of the higher Scottish hills.

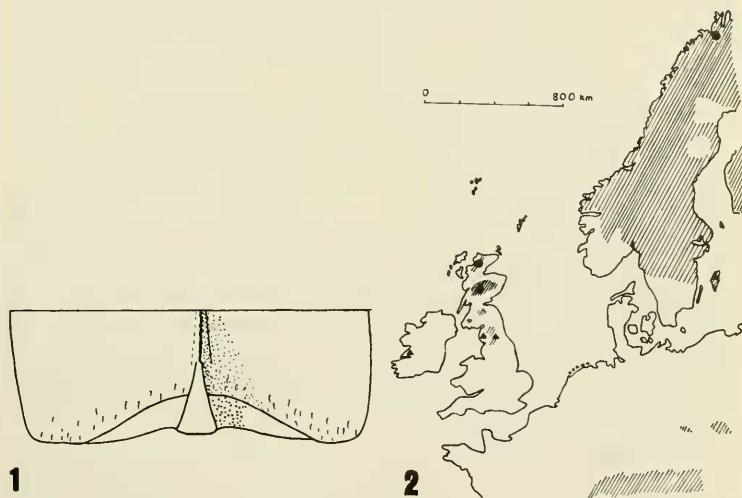


Fig. 1. 8th tergite of male *Pachynematus arcticus* (Lindqvist).

Fig. 2. European distribution of *Pachynematus arcticus* (dots), *Potentilla crantzii* (shading) and *Potentilla fruticosa* (triangles).

Early in the morning of the 25th we investigated the fauna of the ungrazed ledge and steep-face herb communities on the south-facing crags of Ben Heasgarnich. The rock is calcareous Dalradian schist and because of this, the dominant plants are montane calcicoles such as *Dryas octopetala* L., *Salix reticulata* L., *Vaccinium uliginosum* L. and *Potentilla crantzii* (Crantz) Beck. Prolonged searching of many patches of *Salix reticulata* revealed no *Pontania* galls, but this was no surprise since the only gall-maker occurring on it has not been recorded in Britain. Sweeping was generally

\*99 Clermiston Road, Edinburgh EH12 6UU.

difficult, but on a broad ledge with a rich variety of herbs, a single male of *Pachynematus arcticus* (Lindqvist) was obtained.

*P. arcticus* is a very slender species only 4-5mm long. Its size and very dark colouration probably often cause it to be overlooked. It was described as *Mesoneura arctica* by Lindqvist (1958) from a male collected by Richard Frey in the alpine zone of Malla Field, north-west Norwegian Lapland in July 1943. Benson (1961) transferred the species to *Pachynematus* and recorded that he had caught a male at Inchnadampf, Sutherland. A second male was taken at the same locality by Mr. E. C. Pelham-Clinton a few years later (Benson, 1964).

The venation of the type was abnormal, a frequent occurrence in arctic sawflies, leading Lindqvist to describe it as a *Mesoneura*, a decision which was certainly wrong (Benson, 1961). The male's penis-valve is completely unlike that of any other *Pachynematus*, but more resembles those of certain *Pristiphora* spp. In fact, independently from Benson, Hellen (1960) indicated that *arcticus* was not a *Mesoneura*, but a *Pristiphora*. Apart from the penis-valve (Lindqvist, 1958, fig 3; Benson, 1961, fig. 1), the 8th tergite of the male is also closer to the *Pristiphora* type than to a *Pachynematus* (fig. 1). However, the costa is barely expanded at its apex and the clypeus is only very weakly emarginated, both of which are important characters leading to *Pachynematus* rather than *Pristiphora* in Benson's (1958) key.

Lindqvist (1970) described *Pachynematus incisus* on the basis of two females reared by Wershutskij from *Potentilla fruticosa* L. near Irkutsk in the Baikal region of Siberia. Wershutskij's collection of Siberian Nematinae, sent to Lindqvist for identification, also contained a male *P. arcticus* (Lindqvist, 1972). These two papers should be consulted for descriptions and figures of the female *arcticus* (= *incisus*), which possesses a distinctive sawsheath resembling those of certain *Pristiphora*.

The rearing of the female *arcticus* from *Potentilla fruticosa* (Rosaceae) is also most interesting and remarkable. Other groups of Palaearctic *Pachynematus* are associated chiefly with Gramineae, Cyperaceae and Coniferae, with only a couple of species feeding on Salicaceae and Polygonaceae. The association of *arcticus* with Rosaceae is once again reminiscent of *Pristiphora*. I suspect that in Europe the larva of this species should be looked for on *Potentilla crantzii* (Alpine Cinquefoil), a local arctic-alpine plant whose British stations include both localities where the *Pachynematus* has been found.

More information on the biology and distribution of *arcticus* would be valuable in resolving its generic position. At present, it is best retained as a distinctive species-group within *Pachynematus*. It is possible that it has been consistently overlooked because of its unusually late flight season.

Figure 2 shows the known European distribution of the sawfly and its probable foodplants.

## Acknowledgement

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## Notes and Observations

A STRANGE CASE OF LARVAL DEPRAVITY. — 1981 was not the most productive season I can remember as the half-filled setting boards in my drying-cabinet will testify, but imagine my anger when perusal of these boards late in September revealed damage to many of the specimens. I searched diligently for the tell-tale exit holes and small piles of minute frass that betrays the presence of *Anthrenus museorum*, the 'Collectors-friend'. Instead of the characteristic dry powder I found large, moist pellets of a lepidopteran origin. Minute examination revealed the half-inch long culprit. The larva, a noctuid, was dining out at the expense of his deceased brethren, so I confined his attentions to a large corpse of *Hyloicus pinastri* Linn., upon which he fed until pupation in late November.

I was rewarded for my labours on 26 February this year with the emergence of a fine, though rather dark, example of *Caradrina clavipalpis* Scop. I believe this is the first time that a noctuid larva has been reared exclusively upon a diet, although the habit is well established amongst some of the Oecophoridae, namely *Hoffmanophila pseudospretella* Stt., and *Endrosis sarcitrella* Linn. — MARK HADLEY, 2 Thompson Street, New Bradweel, Wolverton, Bucks.

PHYLLONORYCTER SAPORTELLA (DUPONCHEL) (HORTELLA FABRICIUS) IN EAST NORFOLK. — On the 8th of November 1981 my wife and I were making records in the Redgrave-Lopham area, where vice-counties 25, 26, 27 and 28 meet. There are fine roadside oaks on which I have found eight species of nepticulid, including the local *Ectoedemia quinquella* (Bedell). On this occasion, however, we were searching for *Caloptilia* cocoons; the early stages of *C. alchimiella* (Scopoli) and *C. robustella* Jäckh seem to be indistin-